CDH COMMENTS FOLLOWED BY EG&G RESPONSES:

CDH Comment:
Citation C-112: In its response to Citation C-112, DOE states that the Division's concerns are addressed in Section 7. However, DOE still has not justified the adequacy of a 150 foot grid versus the 50' grid specified in Table 5 of the IAG Statement of Work. The question remains, does a 150' grid meet the statistical requirements of EPA's Guidance for Data Useability in Risk Assessment? DOE should verify the adequacy of the 150' grid and alter it if necessary.

Response to Citation C-112:
The statistical requirements in EPA's Guidance for Data Useability in Risk Assessment is intended to be applied to areas of known contamination. The existence of contamination at IHSS 156.2 is unknown. Therefore historical information cannot be used to determine the number of samples required.

The 150 foot grid shown on Figure 7-1 of the Work Plan has been shifted. The result will provide 20 or 21 sample locations rather than the 13 or 14 shown on the Figure. Given the statistical relationships in the Data Useability Guide, this number of samples is expected to provide sufficient data.

CDH Comment:
Figure 2-16: The flow chart represented in this figure is impacted by comments to Tables 2-22 through 2-28. It should be amended to the extent necessary to conduct the risk assessment.

Response to Figure 2-16 Comments: Amended as noted

CDH Comment:
Table 2-22: Surface Water should be included in Table 2-22 as a Contaminant Source. True, surface water is a Transport Media (and a release mechanism), but it is also a contaminant source. Contaminants in surface water may not be derived solely from existing sediments in Walnut Creek (e.g., the effluent from the Sewage Treatment Plant might contain contaminants.)

Sediments may exist in a dry state or under water. Wind erosion thus constitutes a Primary Release Mechanism (PRM) with Air being the Transport Media (TM). Settled dust then becomes a Secondary Release Mechanism (SRM).

Response to Table 2-22 Comments:
Surface water is not considered a contaminant source. If water was being contaminated as it passed through the sewage treatment plant, the water would be a transport media and the sewage treatment plant would be considered the source.

CDH Comment:
Table 2-23: Wind is a PRM; Air is a TM and settled dust is an SRM for contaminated soil.

Response to Table 2-23 Comments: Amended as noted

CDH Comment:
Table 2-24: Relative to Buried Wastes, Infiltration/Leaching is a PRM, Vadose Water and Ground Water are TMs for which Pumping, Seepage, and possibly Volatilization, are SRMs.

The Division questions the inclusion of Fugitive Dust Wind Erosion for a Buried Waste source. The term buried implies that the waste was covered, not merely placed in a trench and left exposed. If there is concern about soil that was contaminated as a result of burial, then wind erosion is an issue. If the latter is true, wind erosion should be addressed under Contaminated Soil.

Response to Table 2-24 Comments: Amended as noted.

CDH Comment:
Table 2-25: Wind Erosion is a PRM, Air is a TM and Settled Dust is an SRM. Vadose Water is a TM, while recharge to Ground Water and seepage to surface water and sediments are SRMs. Surface Water is a TM with re-suspension/dissolution as SRMs.

Response to Table 2-25 Comments: Amended as noted

CDH Comments:
Table 2-26: See comments to Table 2-24.
Table 2-27: See comments to Table 2-24.
Table 2-28: See comments to Table 2-24, excluding the paragraph on Fugitive Dust Wind Erosion.

Response to Tables 2-26 through 2-28 Comments: Amended as noted

CDH Comments:
Section 7.2.1: Regarding Stage 1, the High Purity Germanium Survey (HPGe) has been touted as an improvement over the FIDLER technology and is proposed for other operable units. Would HPGe be appropriate for the radiation survey of this and the other IHSSs?

Regarding Stage 2, collection of a surface soil sample to a 2" (5 cm) depth implies use of the RF method described in EMD OP GT.8. However, GT.8 specifies that "The CDH method will be used in the IAG projects". GT.8 further states that "the grab method will be used in special circumstances when the CDH or RF methods do not apply". DOE must explain the "special circumstances" that preclude the use of the CDH method and clarify why the RF method, if this is the method being proposed, is the preferred alternative to the CDH or grab methods. he Division does not necessarily insist that the CDH method be used; however DOE must justify why it is violating its own procedures as stated in EMD OP GT.8.

GT.8 Also provides for different sampling techniques for radionuclide versus non-radionuclide surface soil sampling. Since these samples are to be analyzed for TCL Metals and TCL Pesticides, in addition to radionuclides, DOE must justify how one sample will satisfy both requirements and provide reliable data.

The Division is concerned that surface soil sampling among the operable units may not be consistent and thereby may not meet PARCC goals. It is in DOE's best interests to respond to these issues to prevent the collection of unacceptable data.

Response to Section 7.2.1:
The HPGe survey has been substituted for the FIDLER survey for all relevant IHSSs (141, 156.2, and 165).

Regarding Stage 2, the RF method will be used when obtaining a sample for both radionuclide and non-radionuclide analysis. The sample will be split as required for the different fractions after mixing in a stainless steel bowl. Fractions for VOA analysis will be removed prior to mixing.

The IAG specifies a two inch sample depth (5.08 cm) which is close to the 5 cm depth of the RF jig. The CDH method does not meet the IAG depth requirement of two inches. The RF method is consistent with surface soil sampling procedures at CERCLA regulated OUs.

CDH Comment:
Section 7.2.2: Regarding the second paragraph of page 7-14, Section 11.1 (SOPA) of the Final Work Plan should be updated to reflect the addition of dry surface sediment samples and the sample collection method to be used.

Response to Section 7.2.2:
Dry surface sediment collection is covered in SOP SW 6. Section 5.4.6 Sampling Dry Sediments. SW 6 is referenced within this section on page 7-18.

CDH Comment:
Table 7-7: The table states that a proposed alluvial well is shown on Figure 7-6. According to Stage 4, page 7-31, the proposed well is not shown. The well is not shown, but the Division prefers that it be shown.

Response to Table 7-7: Amended as noted

CDH Comment:
Section 7.2.7: The second paragraph, page 7-33, references Figures 7-4 and 7-6. The proposed sediment sampling sites are shown on Figure 7-4, but not on Figure 706 as a new reference suggests. Please address.

In the third paragraph, reference is made to a proposed surface water station down gradient of IHSS 167.3. The Division would prefer that be shown on Figure 7-4 or 7-6.

Response to Section 7.2.7: Amended as noted.